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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,993	10/05/2000	Martin W. Allen	ALLEN I-2-1	9469

7590

03/27/2003

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EXAMINER

DERRINGTON, JAMES H

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,993

Applicant(s)

ALLEN ET AL.

Examiner

James Derrington

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14 6) ☐ Other:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harding (4,793,840) in view of Yoshimura et al (5,073,179) or Cain et al (4,867,775).

Harding discloses the method of forming an optical fiber by feeding a perform 1 at a predetermined first rate and drawing an optical fiber at a predetermined second rate using the capstan drive 25. Harding also discloses that the diameter is monitored as it is drawn and the diameter measured is compared to a preset diameter and the speed of the capstan is controlled and adjusted in response to the comparison/monitoring step in order to keep a constant fiber diameter during drawing while the downfeed rate of the perform is kept constant (See Col. 1, lines 32-64, Col. 2, lines 16-29 and lines 54-64 and Col. 3, lines 13-20). Claims 1, 10 and 16 additionally recite "a draw rate of at least 10 meters per second".

Drawing speeds of at least 10 meters per second are known to the art as evidenced by the teachings of Yoshimura et al where drawing speeds of up to 1000 m/min, i.e. 16.67 m/sec, are set forth at Col. 1, lines 54-57. Similarly, the Cain et al reference discloses that commercially attractive drawing speeds are at least 10 and preferably at least 20 meters per second (See Col. 4, lines 58-61). It would have been obvious for one of ordinary skill in the art to have used the instant drawing speeds in the

process of Harding since it would have been expected that the process of Harding would have operated in the desired manner of producing a drawn optical fiber having a constant diameter and since the recited drawing speeds are preferred by the prior art as disclosed by Cain et al. Regarding the recitation that the draw speed are defined within zones, the various speeds as set forth by Harding qualify as draw speed zones.

Harding also discloses that the downfeed rate of the preform can be varied (See Col. 4, lines 13-16). With regard to claims 7-9 and 14-15, Harding disclose that the fiber diameter is preset, i.e. predetermined and that any deviation from the preset value is sensed by monitor 9 and control algorithm 24 compares the deviation signal with the program line speed signal 22 to adjust the capstan drive. As discussed above, the downfeed rate of the preform can also be varied. Because Harding preselects a desired diameter value and it would be clearly obvious to select multiple diameter values dependent on the desired end use of the fiber it appears to the examiner that various draw speed ranges and associated downfeed rates would be inherent in the process of Harding

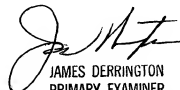
Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harding (4,793,840) in view of Yoshimura et al (5,073,179) as applied to claims 1-9, 11, and 13-16 above, and further in view of Hart Jr. et al (5,298,047).

Hart, Jr. discloses that the spinning of fiber during drawing can reduce polarization mode dispersion (PMD)- See Abstract. Therefore it would have been obvious for one of ordinary skill in the art to have subjected the instant fiber to a spinning step during drawing for the reason set forth by Hart. Jr.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is 703 308-3832. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7718 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.


JAMES DERRINGTON
PRIMARY EXAMINER
ART UNIT ~~157~~ 1731

jd
March 23, 2003